UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/671,548	09/29/2003	Akira Murakawa	018775-877	7496

21839　　7590　　04/26/2007	EXAMINER
BUCHANAN, INGERSOLL & ROONEY PC POST OFFICE BOX 1404 ALEXANDRIA, VA 22313-1404	NGUYEN, KHOI

	ART UNIT	PAPER NUMBER
	2132	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/671,548	MURAKAWA, AKIRA
	Examiner	Art Unit	
	Khoi Nguyen	2132	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 September 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>9/29/2003, 10/06/2005</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1.   Claims 1-19 are pending and presenting for examination.

Information Disclosure Statement

2.   The information disclosure statement filed on 09/29/2003 fails to comply with 37

CFR 1.98(a)(1), which requires the following: (1) a list of all patents, publications,

applications, or other information submitted for consideration by the Office; (2) U.S.

patents and U.S. patent application publications listed in a section separately from

citations of other documents; (3) the application number of the application in which the

information disclosure statement is being submitted on each page of the list; (4) a

column that provides a blank space next to each document to be considered, for the

examiner's initials; and (5) a heading that clearly indicates that the list is an information

disclosure statement. The information disclosure statement has been placed in the

application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

4.   Claim 7 is rejected under 35 USC 112, second paragraph as being vague and

indefinite for failing to point out and distinctly claim the subject matter which applicant

regards as the invention.

5.   The phase "the client installs the root certificate received from the client" on line 5

of claim 7 is not clearly understood the origin of the root certificate. For

examining purposes, the root certificate will be considered as coming from the

root certificate server.

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless – (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

> ***Examiner has pointed out particular references contained in the prior arts of record in the body of this action for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. Applicant should consider the entire prior art as applicable as to the limitations of the claims. It is respectfully requested from the applicant, in preparing the response, to consider fully the entire references as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior arts or disclosed by the examiner.***

7.   Claims 13 and 16 are rejected under 35 USC 102(e) as anticipated over

Smetters et al. (US PGPub. No. 2004/0088548), hereafter "Smetters".

8.   With regard to claim 13, Smetters discloses a computer-readable storage device

storing a program ([0019]) comprising the steps of: requesting a root certificate to

a device connected through a network ([0031: lines 5-7); receiving the root

certificate from the device ([0035]: lines 2-3); and installing the root certificate

([0035]: line 3, storing the certificates in memory reads on client installs the root

certificate received from the client).

9.   With regard to claim 16, Smetters discloses the computer-readable storage

device wherein the program further comprising the step of receiving user's

confirmation on the installation of the root certificate before the requesting step

(Fig. 6: item 516, user decides to use a selected public key before the certificate

is created and send reads on receiving user's confirmation on the installation

before the requesting step).

Claim Rejections - 35 USC § 103

10.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the.manner in which the invention was made.

11.   Claims 1, 4-5, 7-8, 10, 12 are rejected under 35 USC 103(a) as anticipated by

Smetters, in view of Aiello et al. (US Pat. No. 6397329), hereafter "Aiello", and further in

view of Benson (US. Pat. No. 6047242), hereafter " Benson"

12.   With regard to claim 1, Smetters discloses a communication system wherein a

device and a client communicate data with each other through a network

(Abstract), wherein said device comprises:

a first storage device which stores a root certificate including a public key in a

pair of the public key and a private key ([0025]: lines 6-13).

a certificate creator which creates a second certificate designated as a certificate

authority at a higher level ([0031]: lines 8-13).

a communication device which transmits the second certificate created by said

certificate creator; wherein said client comprises ([0035]: lines 1-3).

a second storage device which stores the root certificate stored in said first

storage device ([0035]: line 4); and

a verifier which verifies the signature of the second certificate received from said

device with the root certificate in said second storage device ([0042]: lines 1-6).

Smetters, however, does not disclose the root certificate is signed with the public

key and a second certificate including the root certificate and signed with the

private key.

Aiello discloses a certificate is signed with the public key (col. 4: lines 54-55).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the method of Smetters such that to include the root certificate is signed with the public key, as taught by Aiello, and would be motivated to provide a digital identity that is less expensive, in term of overall computing and communication network resources (col. 5: lines 56-59).

Nevertheless, neither Smetters nor Aiello discloses the second certificate including the root certificates and signed with the private key.

Beson discloses a challenge that includes the root certificates (col. 9: lines 46-47) and signed with the private key (col. 2: lines 62-63).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Aiello such that the second certificate including the root certificates and signed with the private key, as taught by Benson, and would be motivated to provide proof and validation of a communication message between two parties (col. 4: lines 38-48).

13.   With regard to claim 4, Smetters discloses the communication system (Abstract)

where the client is a personal computer ([0030]: lines 1-3, laptop 12(2) reads on

client is a personal computer).

14.   With regard to claim 5, Smetters discloses the communication system (Abstract)

where the second storage device is a hard disk drive ([0019: lines 5-6).

15.   With regard to claim 7, Smetters discloses a communication method for a

communication system, where a device and a client communicate data with each

other through a network (abstract), where the device holds a root certificate

including a public key in a pair of the public key and a private key ([0025]: lines 6-

13); the client installs the root certificate received from the client and including

the private key ([0035]: line 3, storing the certificates in memory reads on client

installs the root certificate received from the client and since the root certificate

contains both private and public key; it reads on including the private key); the

device creates a second certificate ([0031]: lines 8-13); the device sends the

second certificate to the client ([0035]: lines 1-3); and the client verifies the

signature of the second certificate received from the device with the root

certificate ([0042]: lines 1-6).

Smetters, however, does not disclose the root certificate is signed with the public key and a second certificate including the root certificate and signed with the private key.

Aiello discloses a certificate is signed with the public key (col. 15: lines 56-59, a common key reads on public key that uses to encrypt a certificate).
It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the method of Smetters such that to include the root certificate is signed with the public key, as taught by Aiello, and would be motivated to provide a digital identity that is less expensive, in term of overall computing and communication network resources (col. 5: lines 56-59).

Nevertheless, neither Smetters nor Aiello discloses the second certificate including the root certificates and signed with the private key.

Beson discloses a challenge that includes the root certificates (col. 9: lines 46-47) and signed with the private key (col. 2: lines 62-63).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters and Aiello such that the second certificate including the root certificates and signed with the

private key, as taught by Benson, and would be motivated to provide proof and validation of a communication message between two parties (col. 4: lines 38-48).

16.   With regard to claim 8, Smetters discloses the method wherein the device further holds an intermediate certificate or intermediate certificates for a certificate authority or certificate authorities existing in a hierarchical order up to a root certificate authority (Fig. 7: items 30 and 40); the client installs the intermediate certificate or intermediate certificates besides the root certificate key ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client); the device sends the second and intermediate certificates to the client ([0031]: lines 8-13); and the client verifies the signatures of the second and intermediate certificates received from the device with the intermediate and root certificates ([0042]: lines 1-6).

17.   With regard to claim 10, Smetters discloses when the client installs the root certificate, the installation is performed after it is confirmed by a user ([0031: lines 5-7, positive answer from laptop(2) indicates that it would like to participate which lead to getting the certificate and installs on it end; this reads on installation after it is confirmed by a user).

18.   With regard to claim 12, Smetters discloses the data is communicated according to security sockets layer protocol ([0029: lines 6-7).

19.   Claims 2-3 are rejected under 35 USC 103(a) as unpatentable over Smetters, in

view of Aiello, and in view of Benson and further in view of Debry (US Pat. No.

6918042), hereafter "Debry".

20.   With regard to claim 2, Smetters discloses a communication system and device

        (Abstract) but neither Smetters, Aiello nor Beson discloses the device is a printer.

        Debry, on the other hand discloses the device is a printer (col. 5: lines 59-60).

        It would have been obvious to one of the ordinary skill in the art at the time of the

        applicant's invention was made to modify the methods of Smetters, Aiello,

        Benson such that to include the device is a printer, as taught by Debry, and

        would be motivated to provide print servers to which the computer system can be

        communicatively linked (col. 1: lines 51-53) and to protect printers themselves

        from malicious attacks (col. 5: lines 33-34).

21.   With regard to claim 3, Smetters discloses the communication system (Abstract)

        but neither Smetters, Aiello nor Beson discloses the device is a multifunctional

        peripheral.

        Debry, on the other hand discloses the device is a multifunctional peripheral (col.

        6: lines 9-14).

It would have been obvious to one of the ordinary skill in the art at the time of the

applicant's invention was made to modify the methods of Smetters, Aiello, and

Benson such that to include the device is a multifunctional peripheral, as taught

by Debry, and would be motivated to provide print servers to which the computer

system can be communicatively linked (col. 1: lines 51-53) and to protect printers

themselves from malicious attacks (col. 5: lines 33-34).

22.   Claims 9, 11, 14-15, 19 are rejected under 35 USC 103(a) as unpatentable over

Smetters, in view of Aiello, and in view of Benson, and in view of Debry, and further in

view of Slick (US PGPub. No. 2004/01109568), hereafter, "Slick".

23.   With regard to claims 9 and 14 Smetters discloses a method comprising: when

the client installs the root certificate, the client firstly requests the root certificate

to the device ([0031: lines 5-7), secondly receives the root certificate from the

device ([0035]: lines 2-3), thirdly converts the received root certificate to a

predetermined format when the root certificate is received ([0026]: lines 7-10,

since different types of certificates can be used; it is well known in the art for any

of these certificates to be converted to one standard in order to communicate

with each other), and fourthly installs the converted root certificate ([0035]: line 3,

storing the certificates in memory reads on client installs the converted root

certificate received from the client).

Neither Smetters, Aiello, and Benson discloses the device where the device is a printer.

Debry, on the other hand, discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters Aiello, and Benso such that to include the device is a printer, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

However, neither Smetters, Aiello, Benson nor Debry discloses a printer driver is installed from the device.

Slick discloses a printer driver is installed from the device ([0057]: lines 1-4).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters, Aiello, Benson and Debry such that to include the installation of a printer driver from the

device, as taught by Slick, and would be motivated to provide the public key through a printer driver ([0005]: lines 8-11).

24.   With regard to claims 11, 15, and 19, Smetters discloses method/device where the client installs the root certificate after the printer driver is installed ([0035]: line 3, storing the certificates in memory reads on client installs the root certificate received from the client. Furthermore, it is well known in the art for a device to install a driver of that device prior to communicate with it as presented below) but neither Smetters, Aiello, and Benson discloses the device is a printer, and install the root certificate after a printer driver is installed from the device.

Debry, on the other hand, discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the applicant's invention was made to modify the methods of Smetters, Aiello, and Benson such that to include the device that has print function, as taught by Debry, and would be motivated to provide print servers to which the computer system can be communicatively linked (col. 1: lines 51-53) and to protect printers themselves from malicious attacks (col. 5: lines 33-34).

However, neither Smetters, Aiello, Benson nor Debry discloses a printer driver is installed from the device.

Slick discloses a printer driver is installed from the device ([0057]: lines 1-4,

further notes that in order communication with the printer; the printer driver need

to be active before any communication).

It would have been obvious to one of the ordinary skill in the art at the time of the

applicant's invention was made to modify the methods of Smetters and Debry

such that to include the installation of a printer driver from the device, as taught

by Slick and would be motivated to provide the public key through a printer driver

([0005]: lines 8-11).

25.   Claim 6 is rejected under 35 USC 103(a) as unpatentable over Smetters, in view

Aiello, and in view of Benson, and further in view of Vogel et al. (US Pat. No. 6816900),

hereafter "Vogel".

26.   With regard to claim 6, Smetters discloses the communication system (Abstract)

but neither Smetters, Aiello nor Beson discloses the second storage device is a

read-only memory.

Vogel, discloses the second storage device is a read-only memory (Fig. 2: item

150).

It would have been obvious to one of the ordinary skill in the art at the time of the

applicant's invention to modify the methods of Smetters, Aiello, and Benson such

that to include a read-only memory for the second storage device in the

communication system, as taught by Vogel, and would be motivated to provide a

more user-friendly way in which root certificates at the client computer can be

managed (col. 2: lines 8-10).

27.   Claim 17 is rejected under 35 USC 103(a) as unpatentable over Smetters and

further in view of Aiello.

28.   With regard to claim 17, Smetters discloses a device to be used in a

communication system between the device and a client through a network

wherein the device sends information to the client and the client uses the

information to communicate with the device (abstract), comprising: a first storage

device which stores a pair of a public key and a private key ([0025]: lines 6-13); a

second storage device which stores a root certificate ([0035]: lines 4-5); and an

interface which sends the information as well as the public key to the client

through the network wherein the root certificate is sent through said interface to

the client for verification of the information by the client ([0020]: lines 3-7, RF

reads on the interface which communication between 2 devices are using).

Smetters, however, does not disclose the root certificate is signed with the public

key and a second certificate including the root certificate and signed with the

private key.

Aiello discloses a certificate is signed with the public key (col. 4: lines 54-55).

It would have been obvious to one of the ordinary skill in the art at the time of the

applicant's invention was made to modify the method of Smetters such that to

include the root certificate is signed with the public key, as taught by Aiello, and

would be motivated to provide a digital identity that is less expensive, in term of

overall computing and communication network resources (col. 5: lines 56-59).

29.   Claim 18 is rejected under 35 USC 103(a) as unpatentable over Smetters, in

view of Aiello, and further in view of Debry.

30.   With regard to claim 18, Smetters discloses a communication system and device

(Abstract) but neither Smetters nor Aiello discloses the device is a printer.

Debry, on the other hand discloses the device is a printer (col. 5: lines 59-60).

It would have been obvious to one of the ordinary skill in the art at the time of the

applicant's invention was made to modify the methods of Smetters and Aiello

such that to include the device is a printer, as taught by Debry, and would be

motivated to provide print servers to which the computer system can be

communicatively linked (col. 1: lines 51-53) and to protect printers themselves

from malicious attacks (col. 5: lines 33-34).

Conclusion

31.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

    a.   US Pat. No. 5633932 to Davis et al. (Discloses a printing node will not

        print until it authenticates the intended recipient).

    b.   US Pat. No. 7103774 to Wildish et al. (Discloses a compact identification

        string in a digital certificate to enable an entity to construct a certificate

        chain.).

    c.   US Pat. No. 7047404 to Doonan et al. (Discloses a method for proving the

        validity of a record digitally signed by a user having a digital certificate

        issued by a CA).

    d.   US Pat. No. 7168003 to Lozano et al. (Discloses a program checks for

        installed printers, asks the user to select printer to be tested, and proceed

        with the testing procedure).

32.   Aielloy inquiry concerning this communication or earlier communications from the examiner should be directed to Khoi Nguyen whose telephone number is 570-270-1251. The examiner can normally be reached on Mon-Fri (8:30 am – 5:00 pm est) If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

33.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Khoi Nguyen
Art Unit 2132
Date: 4/23/07